

# Part I

## The National Environmental Policy Act

# Using Information Technology to Improve NEPA Decisionmaking and Management

Since Vice President Gore's reinvention initiative began in 1993, there have been fundamental changes in the way federal agencies provide access to information and how information is shared within agencies. All this has been made possible through the widespread adoption of information technology using the Internet and especially the World Wide Web. The agencies with environmental decisionmaking authority have developed sites on the Internet where one can easily find information on environmental laws, guidance on environmental compliance, and notices on agency activity. Most of these sites are conveniently linked to environmental groups, data repositories, or electronic environmental journals and reports. Since 1993, the Council on Environmental Quality has focused on improving the effectiveness and efficiency of the assessment process

mandated by the National Environmental Policy Act (NEPA). One way to do this is by providing easy access to information provided by CEQ and federal agencies through the Internet. The Internet provides users with on-line versions of environmental laws and regulations, facilitates increased interaction among agencies and their publics, and provides increased access to project information and environmental, spatial and demographic data.

Providing information is specifically mandated by NEPA. Following the goals described in Section 101<sup>1</sup>, NEPA's Section 102 requires that significant environmental data be gathered prior to decisionmaking. Section 102 (2) (G) requires agencies to "make available to States, counties, municipalities, institutions, and individuals, advice and information useful in restoring, maintaining, and enhancing the quality of the environment;" and sec-

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<sup>1</sup> Section 101 of the National Environmental Policy Act specifies the following goals: 1. fulfill the responsibilities of each generation as trustee of the environment for succeeding generations; 2. assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings; 3. attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences; 4. preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choice; 5. achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and 6. enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

**Box 1**

**CEQ's Home Page**  
(<http://www.whitehouse.gov/CEQ/>)

Features:

- What's New
- About CEQ
- Administration's Environmental Record
- NEPAnet
- Task Forces
- Search the White House Library
- Environmental Links

tion 102(2)(H) further requires agencies to "initiate and utilize ecological information in the planning and development of resource-oriented projects."

The purposes of this chapter are threefold: first, to illustrate the types of environmental information that are made available electronically by federal agencies; second, to show how such information is being enhanced and supplemented by information from nongovernmental sources such as environmental groups and professional organizations; and third, to identify useful Internet sites.

### **CEQ's Web Page and NEPAnet**

CEQ's Home Page (Box 1) and NEPAnet (Box 2) were established on the World Wide Web in 1995. The site allows users to keep up to date with environmental activities of the administration, access a wealth of information about NEPA, search the White House Library and, through the environmental links, access data and information dealing with topics such as endangered species, pollution prevention, wetlands, meteorology, socioeco-

nomics and agriculture. CEQ's annual reports, for example, are now placed on NEPAnet (<http://ceq.eh.doe.gov/nepa/nepanet.htm>). Users accessed NEPAnet hundreds of thousands of times throughout 1997. Users come to NEPAnet to review NEPA announcements; read the statute, regulations or guidance; search for environmental information; find out about NEPA training; or to be linked to a specific agency.

One of the key features of NEPAnet is the ability to stay abreast of CEQ activities by being able to read guidance documents, such as the publication "Considering Cumulative Effects Under the National Environmental Policy Act." NEPAnet also has an expanding list of other federal sites related to the environment. NEPAnet provides large volumes of information very quickly and at a very low cost.

**Box 2**

**CEQ's NEPAnet on the  
World Wide Web**  
(<http://ceq.eh.doe.gov/nepa/nepanet.htm>)

Features:

- Full Text of Statute (NEPA)
- Regulations for Implementing NEPA
- Agency NEPA Web Sites
- Guidance Documents
- CEQ Annual Reports
- Environmental Impact Analysis
- Environmental Organizations
- International Environmental Impact Assessments
- NEPA Bibliographic Information
- NEPA Training Information
- Enviro Text Retrieval System

While CEQ's Home Page and NEPA.net provide links to federal activities, these sites are also links in a chain running throughout the federal agencies and the environmental community. Internet technology has made it possible to fulfill principles embedded in many of the environmental laws of the U.S., such as involving the public in the decisionmaking process, providing easy access to environmental information, and providing a method for interagency cooperation. The Internet also allows for quick dissemination of information such as Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," the "National Environmental Policy Act Effectiveness Study," and "Environmental Justice: Guidance under the National Environmental Policy Act."

CEQ recognizes that not all Americans have access to computer technology. Because of this, CEQ continues to recommend and follow a dual course of providing information in traditional paper format as well as on the Internet. Undoubtedly, the availability of reports, guidance documents and agency information online has dramatically increased the number of people reading and using the material and the timeliness with which they receive the material. As users become more accustomed to acquiring information through the Internet, requests for hard copies can be expected to decline. An additional benefit of online information is that the international environmental community can quickly and easily access information that, in the past,

required correspondence, shipping costs and perhaps clearance through customs. This is critical as the U.S. enters into, and complies with, international environmental treaties and agreements.

### **Agency Internet Approaches**

Federal agencies have moved quickly to provide information on environmental programs online. Because environmental programs are often embedded in program offices within agencies or delegated to regional offices, multiple Internet sites are often available within the same agency. Table 1 shows the agencies most active in producing Environmental Impact Statements under the National Environmental Policy Act. To simplify the presentation in Table 1, each agency's main WWW sites are identified first, with agency environmental sites listed below the main agency address. *WWW addresses are provided, but the reader must be cautioned that addresses do change. All Internet addresses provided in this chapter were active at the time of writing. In most cases, when an address changes, a note directing the user to the new site will appear at the obsolete address.*

### **Access to Laws, Regulations, and Guidance**

A key starting point for sound environmental decisionmaking is a knowledge and understanding of environmental laws, regulations and agency procedures. The Internet has made the ever-changing body of U.S. laws, regulations, Executive Orders, and departmental directives/

**Table 1: Summary of Key Agency Internet Addresses and Content**

Agency	WWW Address	Laws/Regulations	Guidance Documents
EPA - Office Federal Activities	<a href="http://www.epa.gov">http://www.epa.gov</a> <a href="http://es.epa.gov/oeca/ofa/index.html">http://es.epa.gov/oeca/ofa/index.html</a>	Regulations & Proposed Rules, Codified Regulations, Laws and Current Legislation NEPA, Clean Air International Environmental Agreements	National Center for Environmental Publications and Information (NCEPI) <a href="http://www.epa.gov/epahome/publications.htm">http://www.epa.gov/epahome/publications.htm</a> Pollution Prevention, Environmental Justice, Guide for Cross-cutting Environmental Laws
DOE (Energy) - Environment - NEPA Web - Envirn. Mgmt.	<a href="http://www.doe.gov">http://www.doe.gov</a> <a href="http://tis.eh.doe.gov/">http://tis.eh.doe.gov/</a> <a href="http://tis.eh.doe.gov/nepa/">http://tis.eh.doe.gov/nepa/</a> <a href="http://www.em.doe.gov/">http://www.em.doe.gov/</a>	NEPA, CEQ Regs, DOE Orders, DOE Regs., Directives, Orders	Guidance documents in Digital Library Guides provided under "DOE Directives"
DoD (Defense) - Defense Envirn. Network and Information exchange)	<a href="http://www.defenselink.mil/">http://www.defenselink.mil/</a> <a href="http://denix.cecer.army.mil">http://denix.cecer.army.mil</a>	Provides link to Environmental Programs (DENIX - identified below) Environmental Law Index, Current Executive Orders, Proposed Rules + links to environmental law library	Policy and Guidance Index
USDA (Agriculture) Forest Service	<a href="http://www.usda.gov">http://www.usda.gov</a> <a href="http://www.fs.fed.us/forum/nepa/">http://www.fs.fed.us/forum/nepa/</a>	NEPA, Forestry Management Act, Environmental Justice Order	Environmental Policy Procedures Manual & Handbook and Staff Manuals
Federal Highways Office of Environment & Planning	<a href="http://www.fhwa.dot.gov/">http://www.fhwa.dot.gov/</a> <a href="http://www.fhwa.dot.gov/environment/">http://www.fhwa.dot.gov/environment/</a>	FHWA Legislation + access to law libraries Summary of Environmental Legislation affecting Transportation	Interim Guidance on Congestion Mitigation and Air Quality Improvement Environmental Guidebook, Historic and Arch. Guidance
DOI (Interior) - NPS - BLM	<a href="http://www.doi.gov/oepc/oepchome.html">http://www.doi.gov/oepc/oepchome.html</a> <a href="http://www.nps.gov/planning">http://www.nps.gov/planning</a> <a href="http://www.blm.gov/nhp/">http://www.blm.gov/nhp/</a>	Summary of Laws, Links to Law Libraries and Court Opinions  Proposed and Final Rules	NPS NEPA procedures

orders easily accessible to both agency personnel and the public. Previously, these were available only through expensive subscription services or through traditional law libraries and public reading rooms. As can be noted from Table 1, all agencies listed provide access to laws and regulations related to their environmental programs. Some systems, such as the Department of Defense's (DoD) Defense Environmental Network Information eXchange (DENIX) (<http://denix.cecer.army.mil>), provide an index of environmental legislation with access to an online version of the actual laws through Cornell Law School's Legal Information Institute (<http://www.law.cornell.edu/>). Box 3 shows a list of virtual law libraries where Federal and state environmental laws can be read online.

In many cases, agencies provide guidance documents online to assist agency personnel as well as the public in understanding the environmental processes to be followed under specific regulations. Agencies provide a wide variety of information beyond that described above. Often the public becomes interested in

**Box 3**

**Virtual Law Libraries  
on the Internet**

- U.S. House of Representatives  
<http://law.house.gov/>
- Cornell Law School  
<http://www.law.cornell.edu>
- FedLaw  
<http://www.legal.gsa.gov/>
- University of Indiana  
<http://www.law.indiana.edu/law/v-lib/envlaw.html>

**Box 4**

**Department of Energy's  
NEPA Web Site  
(<http://tis.eh.doe.gov/nepa/>)**

Features:

- DOE NEPA Announcements
- DOE NEPA Analyses
- NEPA Links
- DOE NEPA Tools
- DOE NEPA Process Information
- Internet Resources
- Web Utilities

environmental decisionmaking because an Environmental Impact Statement is for a specific project. The agencies listed in Table 1 provide information on environmental impact statements by providing news releases, Federal Register notices, announcements, annual reports, and sometimes summaries of EISs on the Internet. For example, in the case of the Department of Energy's NEPA Web (Box 4), NEPA announcements are updated regularly and identify all DOE NEPA activities. In addition, DOE makes more recent environmental assessments and environmental impact statements available on line (<http://tis.eh.doe.gov/nepa/docs/docs.htm>). An additional capability of DOE's NEPA Web is the ability to search a database for any Environmental Impact Statement done by the Department (<http://tis.eh.doe.gov/nepa/eis/eis.htm>). This database provides information necessary to find documents that may not be online.

## Access to Data

Critical to sound environmental decisionmaking under NEPA is having environmental data available for analysis. Internet technology makes it possible for CEQ to fulfill NEPA's Section 205 (2), which requires CEQ to "utilize, to the fullest extent possible, the services, facilities and information (including statistical information) of public and private agencies and organizations, and individuals, in order that duplication of effort and expense may be avoided, thus assuring that the Council's activities will not unnecessarily overlap or conflict with similar activities authorized by law and performed by established agencies."

CEQ's Home Page, as well as CEQ's NEPAnet provide a link (under "Environmental Links") to the U.S. Geological Survey's (USGS) Environmental Impact Analysis Data Links (Box 5). This site

### Box 5

#### **USGS Environmental Impact Analysis Data Links** ([http://h2o.usgs.gov/public/ eap/env\\_data.html](http://h2o.usgs.gov/public/eap/env_data.html))

- Agricultural
- Endangered Species
- Energy
- Hydrologic
- Meteorologic
- Pollution Prevention
- Socio-economic
- Spatial
- Wetlands
- State and Regional
- International

(menu and address shown in the text box) provides online access to such diverse data sets and data centers as the U.S. Department of Agriculture's Economics and Statistics System, the USGS Hydro-climatic Data Network Streamflow Data Set, National Oceanic and Atmospheric Administration National Oceanographic Data Center, U.S. Census demographic data sets and the Earth Resources Observation Systems Data Center.

Geographic Information Systems (GIS) are now widely used in NEPA analyses and elsewhere. These systems allow the marriage of computer mapping with place-based data. For instance, digitized Census data can be used to map the distribution of minorities around an existing airport while "overlying" a noise contour from a proposed airport expansion. The Census Bureau has designed a simple, easy-to-use mapping system (Landview III), which includes population, income and ethnicity data combined with the database extracts from the Environmental Protection Agency, the Bureau of the Census, the U.S. Geological Survey, the Nuclear Regulatory Commission, the Department of Transportation, and the Federal Emergency Management Agency. The Landview III system is available on CD-ROM and can be viewed and ordered online (<http://www.census.gov/ftp/pub/geo/www/tiger/>).

One can also create maps online combining demographic data with geographic information at the Census Home Page (<http://www.census.gov>) or using a mapping program called DDViewer, which is maintained by the Consortium for International Earth Science Information Net-

work (CIESEN) and Social and Economic Data Center (SEDAC) through grants from NOAA and NASA respectively (<http://plue.sedac.ciesin.org/plue/ddviewer/>). DDViewer allows users to create maps online by selecting variables from the U.S. Census and creating maps using Census map files. CIESEN/SEDAC is particularly useful for global change research; the main site includes real-time mapping of stratospheric ozone, ultraviolet dose estimates, and integrated population, land-use and emissions data.

Spatial data, necessary to carry out these types of analyses, are increasingly available (primarily by order) over the Internet. Links to spatial data are provided by the USGS, and include such sites as the Earth Resources Observation Systems (EROS) Data Center (<http://edcwww.cr.usgs.gov/eros-home.html>). The EROS Data Center archives millions of aerial and satellite photographs, a number of which are distributed as US Geo-Data files at no charge. These types of images are critical in analyzing environmental change over time, such as time series photos of shoreline erosion on the Chesapeake Bay, changes in vegetative cover, or shrinkage of wetlands. They can also show the effects of natural phenomenon (such as hurricanes) or the effects of such activities as urbanization and agricultural development. For high resolution satellite imagery, the SPOT Corporation can be accessed online (<http://www.spot.com/>).

The National Spatial Data Infrastructure (in which the USGS participates) develops policies, procedures and standards for organizations to cooperatively

produce and share spatial data (<http://nsdi.usgs.gov/>). In addition to the above, other examples of Internet sites with spatial information include the Bureau of Land Management's Geographic Coordinate Data Base (<http://www.blm.gov/gcdb/>), Geographical Information Systems (GIS) WWW Resource List (<http://www.geo.ed.ac.uk/home/giswww.html>), and the World-Wide Web Virtual Library: Remote Sensing (<http://www.vtt.fi/aut/ava/rs/virtual/>).

### Access to Models

Models that simulate the complex interactions of the physical setting and natural environment are valuable tools in projecting the effects of human activity or natural events on the environment. Section 102 (2) (A) of NEPA requires federal agencies to "utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on man's environment."

Complex computer models have been created to study all aspects of the environment, including ocean circulation, air dispersion, noise propagation, storm water runoff, erosion, groundwater flow, traffic circulation and human migration. Computer models allow analyses to be both systematic and interdisciplinary by allowing modeling of complex interactions. During 1997, relatively few models were available over the Internet. Increasingly, however, agencies have included brief descriptions of models and the model

**Box 6**

**Examples of Libraries and  
Information Centers  
on the Internet**

- EPA National Center for Environmental Publications  
<http://www.epa.gov/epahome/publications.htm>
- GPO  
[http://www.access.gpo.gov/su\\_docs/aces/aaces002.html](http://www.access.gpo.gov/su_docs/aces/aaces002.html)
- Library of Congress  
<http://lcweb.loc.gov/homepage/lchp.html>
- University of California—Berkeley  
<http://www.lib.berkeley.edu/>
- Indiana University School of Law Library and WWW Virtual Library  
<http://www.law.indiana.edu/law/v-lib>
- The Argus Clearinghouse  
<http://www.clearinghouse.net/>

development process on the WWW. EPA has identified many media-specific tools available on the Internet and made these available (<http://www.epa.gov/epahome/dmedia.htm>). An example of how to effectively use the Internet for model development is the Bureau of Transportation Statistics “Travel Model Improvement Program” (TMIP), which is a multi-agency program to develop new travel demand modeling procedures that will forecast travel demand (<http://www.bts.gov/tmip/tmip.html>). This is important in light of the Transportation Efficiency Act for the 21st Century (TEA21), because numerous transportation projects will be in the planning stages and subject to NEPA analysis.

## Libraries Online

One of the important changes produced by the National Partnership for Reinventing Government has been the availability of online libraries (Box 6). The availability of environmental information from publicly maintained libraries on the WWW is robust. The EPA National Center for Environmental Publications provides access to the National Environmental Publications Internet Site with over 6,000 EPA documents available to browse, view or print online. The Government Printing Office (GPO) provides extensive access to Federal online databases including the *Federal Register*, *Congressional Record*, *Code of Federal Regulations*, Congressional bills, budgets and other libraries. General Services Administration provides links to environmental libraries (<http://www.gsa.gov/pbs/pt/call-in/links.htm>). CEQ’s Regulations for Implementing NEPA Sec. 1502.21 states: “Agencies shall incorporate material into an environmental impact statement by reference when the effect will be to cut down on bulk without impeding agency and public review of the action. The incorporated material shall be cited in the statement and its content briefly described. No material may be incorporated by reference unless it is reasonably available for inspection by potentially interested persons within the time allowed for comment...” Online libraries offer an efficient and low cost way of providing EIS references to a wide audience in a timely manner.

## Nongovernmental Organizations

NEPA Section 101(a) states: "The Congress declares that it is the continuing policy of the Federal Government, in cooperation with State and local governments, and other concerned public and private organizations, to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans."

Sound environmental management of federal assets requires collaboration with members of Congress, federal agencies, interest groups, informed publics and professionals. Nongovernmental organizations (NGOs) have made tremendous strides in providing information via the Internet and thus enhanced the flow of information to and interaction with federal agencies. Most environmental groups now have sites on the WWW and provide information on current environmental issues, program publications and announcements of upcoming events.

NGOs include universities and other types of nonprofit associations. Duke University's Nicholas School for the Environment has a useful WWW site, which includes environmental links, information on the center for Environmental Education, and environmental publications and newsletters (<http://www.env.duke.edu/>). Harvard University (<http://environment.harvard.edu/HERO/>

[wrapper/pageid%3Dhome.html](http://wrapper/pageid%3Dhome.html)) maintains an environmental science and public policy archive and an environmental information center on the Internet.

Professional associations are also using the Internet to link members with information, with each other and to individuals and institutions seeking assistance (Box 7). The International Association for Impact Assessment (IAIA) provides a web site with a membership directory, links to international environmental sites, environmental impact assessment learning exchange, and access to online discussion groups where professionals routinely ask for guidance on a specific topic (<http://ndsuent.nodak.edu/IAIA/>). Nine different discussion groups are main-

### Box 7

#### Examples of Professional Associations Online

- International Association for Impact Assessment  
<http://ndsuent.nodak.edu/IAIA>
- Soil Science Society of America  
<http://www.soils.org>
- North American Association of Environmental Education  
<http://naaee.org/index.htm>
- American Fisheries Society  
<http://www.fisheries.org>
- Ecological Society of America  
<http://www.sdsc.edu/ESA/esa.htm>
- Society for Environmental Toxicology and Chemistry  
<http://www.setac.org/>
- American Planning Association  
<http://www.planning.org>
- Links to Other Ecology Associations  
<http://www.pnl.gov/ecology/links/index.htm>

tained and include topics such as ecology, social impact assessment, urban environmental issues and health impact assessment. IAIA also has a database of training courses offered nationally and internationally that is available at <http://www.erin.gov.au/portfolio/epg/eianet/iaia/search.html>. In expanding the availability of environmental research, IAIA also made the entire proceedings from its 1998 conference available on CD-ROM and sent copies to all its members.

The National Association of Environmental Professionals maintains a web site (<http://www.enfo.com/NAEP/>), which includes a library (including an electronic reading room with links to other organizations), a list server and Internet resources. The Geological Society of America maintains a web site located on the WWW at <http://www.geosociety.org/>. Like many of the larger associations, the Geological Society allows access to their journal abstracts, lists jobs available, identifies grants for students, and provides for education and outreach. Examples of other professional associations with WWW sites are listed in the text box. The list of professional associations related to environmental studies is too lengthy for this discussion but a link to such a list is provided in the text box under "Links to Other Ecology Associations".

### **Electronic Journals**

NEPA's Section 102 (2) (A) requires agencies to "utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design

arts in planning and in decision making which may have an impact on man's environment;" and (B) "identify and develop methods and procedures... which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decision making along with economic and technical considerations." These requirements put a heavy burden on environmental analysts to be knowledgeable about the evolving state of science. Environmental training, professional associations and professional journals are all critical to environmental professionals remaining current in their fields. Increasingly, journals related to the environment are available online (often only in summary form) (Box 8). The Committee for the National Institutes for the Environment maintains a list of environmental journals on the Internet. This list includes journals available in full text and those available with abstracts, table of contents or some articles. The list of environmental journals available online can be found at the following Internet address: <http://www.cnie.org/Journals.htm>.

The American Association for the Advancement of Science has a summary version of their publication *Science* available on line. If an environmental analyst is interested in a complete article, one can subscribe online (<http://www.sciencemag.org/>). Like *Science*, one can access summaries of articles in *Nature: An International Journal of Science* (<http://www.nature.com/>). *Issues in Ecology* is an online series designed to deal with major ecological issues and is published by the Pew Scholars in Conserva-

tion Biology Program and the Ecological Society of America (<http://esa.sdsc.edu/issues.htm>). Some publications are emerging as online journals, such as *The World Wide Web Journal of Biology* available at <http://www.epress.com/w3jbio/wjbhome.htm> (subscription required). Other publications represent research centers and make available their newsletter, such as the Natural Hazards Center at the University of Colorado, which publishes *The Natural Hazards Observer* online (<http://www.colorado.edu/hazards/o/o.html>). While statistics are not available for each electronic publication, statistics on the use of the journal *The Scientist: The News Journal for the Life Scientist* (<http://www.the-scientist.library.upenn.edu/>) indicate 50,000 to almost 80,000 requests for pages per month. While these statistics may indicate the same user requesting multiple pages, the use is significant and likely to grow as more and more people come online. An important aspect to online publications is that the same information available to environmental professionals is also easily accessed by environmental groups and interested citizens, thus making for a better informed public.

### **The Future**

It is clear that federal agencies are making progress in “reengineering through information technology.” The growth in the use of the World Wide Web by agencies and NGOs has meant that many more people within and outside federal agencies are only a “click away” from the information they may need. It is

expected that federal agencies will continue to incorporate web-based technologies in their routine processes and make more and more information available over the WWW. In addition, it is expected that international partners, federal agencies and NGOs will coordinate the development of standards for data sets, provide geo-reference points (latitude and longitude) for their projects and data sets, more comprehensively link web sites to related sites, develop data archives, provide metadata for data archives, and explore web-based assessment tools. Increasingly, it is expected that directories of environmental web sites and online environmental assessment tools will be more and more useful as the volume of information, availability of data sets, and the number of environmental Internet sites increase. Subscriptions to discussion groups, listservers and mailing lists will likely increase in popularity, allowing interested people to receive information from federal agencies and NGOs without requesting it each time. Online libraries and guidance documents, agency web pages, online document retrieval, and access to data centers and professional associations means that environmental information can more easily flow through the environmental community and that environmental professionals can be more easily linked to each other and the resources they need to do their jobs. Increasing the ease with which data and information flows and increasing the ease with which links are made between interested parties (and the data and tools they need) has and will lead to increased efficiency and effectiveness of environmental management.

# Selected NEPA Cases in 1997

## ***Purpose and Need and Range of Alternatives***

In 1997, the Seventh Circuit Court of Appeals, in Simmons v. United States Army Corps of Engineers, 120 F.3d 664 (7th Cir. 1997), reversed and remanded the district court's approval under NEPA of an Army Corps of Engineers permit issued to the City of Marion, Illinois for the building of a dam and reservoir to supply water to the city and six counties. The Seventh Circuit held that the Corps had failed to issue its own definition of purpose and need and, therefore, failed to consider reasonable alternatives to accomplish the general goal of the proposed action.

In 1989, the City of Marion applied to the Corps of Engineers, as required by the Clean Water Act, for a permit to build a dam and reservoir to supply water to the city and a water district encompassing six counties. The proposed dam would block one of the last free-flowing streams in southern Illinois, create a four-mile long lake, flood 1.5 square miles of wetlands and obliterate the riverine habitats of several species. The proposed action was a federal action triggering NEPA. In 1991 the Corps issued a permit, an environmental assessment and a Finding of No Significant Impact, which was challenged

in court. The plaintiffs prevailed, and the Corps was ordered to prepare an environmental impact statement. The district court decision also found the environmental assessment "incomplete and flawed" and noted that the Corps had failed to consider the feasibility of alternatives. In particular, the court noted that the Corps had always assumed that both Marion and the water district needed to receive water from a single source.

Years later, after completion of an EIS, another challenge was brought to the adequacy of the EIS. Plaintiffs maintained that the Corps had defined the project's purpose too narrowly, based on the city's request, and had again failed to consider ways to supply the city and counties water from multiple sources. In response, the Corps maintained that the applicant, the City of Marion, only sought a single reservoir. Second, the Corps maintained that it was reasonable to look only to single-source alternatives because it represented an obvious solution. Although these arguments were accepted by the district court, they were rejected by the Seventh Circuit.

First, the court made clear that an agency bears the responsibility of defining the project's purpose. This is a very important responsibility, because, as the court stated: "One obvious way for an agency to slip past the strictures of NEPA is to con-

trive a purpose so slender as to define competing 'reasonable alternatives' out of consideration (and even out of existence). The federal courts cannot condone an agency's frustration of Congressional will. If the agency constricts the definition of the project's purpose and thereby excludes what truly are reasonable alternatives, the EIS cannot fulfill its role." 120 F.3d at 667. The Corps, here, improperly accepted the applicant's definition of a project. By doing so, the Corps skewed the "evaluation of 'alternatives' mandated by NEPA is to be an evaluation of alternative means to accomplish the general goal of an action." 120 F.3d at 669, quoting from Van Abbema v. Fornell, 807 F.2d 633, 638 (7<sup>th</sup> Cir. 1986) and 40 C.F.R. 1502.13. The general goal of the Marion application was to supply water for Marion and the water district—not to construct a single-source reservoir. Further, an agency cannot "restrict its analysis" to the means by which a particular applicant has set forth to reach its goals. 120 F.3d at 669. Finally, the Corps' own regulations require that the Corps "exercise independent judgment in defining the purpose and need for the project from both the applicant's and the public's perspective." 120 F.3d at 669, quoting from 33 C.F.R. Pr. 325, App. B, (9)(b)(5), (4).

Second, even if the Corps were correct in claiming that a single source was the "obvious solution," the "Corps and, more important, the public cannot know what the facts are until the Corps has tested its presumption." 120 F.3d 669. Looking to logic, the court held that "supplying Marion and the Water District from two or more sources is not absurd—which it

must be to justify the Corps' failure to examine the idea at all." Id. In fact, at least one concrete, reasonable alternative was advanced by plaintiffs, that of feeding water from the existing Rend Lake. The court concluded that other alternatives may be reasonable, but "[w]hat other alternatives exist we do not know, because the Corps has not looked." 120 F.3d at 670.

In conclusion the court stated: "If NEPA mandates anything, it mandates this: a federal agency cannot ram through a project before first weighing the pros and cons of the alternatives." 120 F.3d at 670. Finding that the Corps had "executed an end-run around NEPA's core requirement," the EIS was deemed inadequate. Id.

### **Cumulative Impact Analysis**

For years, the California Department of Transportation and the Federal Highway Administration had worked on a proposed project to address the congestion on California State Highway 1. In fact, the Carmel stretch of highway was one of the most heavily traveled two-lane highways in California, and efforts to solve the highway's traffic problems dated back to the 1940s. One proposal sought to realign Highway 1 from the City of Carmel to the nearby wilderness area of Hatton Canyon. In 1991, an EIS and ROD were issued. Shortly thereafter, plaintiffs City of Carmel-by-the-Sea, Monterey Peninsula Regional Park District, Hatton Canyon Coalition, and the Sierra Club filed an action, alleging violations of NEPA. The district court granted summary judgment to the defendant agencies in 1994, and the

Ninth Circuit reviewed the district court's decision in 1996. One year later, in 1997, the Ninth Circuit withdrew its earlier decision and issued a new decision, affirming in part and reversing in part.

The Ninth Circuit held that the EIS wetlands discussion and mitigation plan were reasonably thorough, despite some inaccuracies and misstatements. 123 F.3d at 1151. Further, failure to account for new wetlands created by the 1989 Loma Prieta earthquake would adequately be addressed by the planned mitigation. 123 F.3d at 1152. The EIS adequately addressed the environmental effects of the proposed project on the largest of the three remaining native Monterey pine forests, and the adopted mitigation plan for replanting of seedlings was also held to be adequate. 123 F.3d at 1154-55. The purpose and need for the project, the alternatives studied, and the analysis of highway growth-inducing effects were also upheld as adequate. 123 F.3d at 1155-56. The court noted, "The district court aptly described the Final Environmental Impact Statement/Report as 'not perfect' . . . . At most times, however [it] is sufficiently thorough in its discussions to satisfy" NEPA. 123 F.3d at 1168.

On the issue of cumulative effects, however, the Ninth Circuit reversed and remanded for entry of an order directing the Federal Highway Administration—together with the State transportation agency—to review the contents of the administrative record and determine whether the EIS must be supplemented to provide the necessary cumulative impacts analysis. Citing 40 C.F.R. 1508.7, the court determined that the EIS failed

"both to catalogue adequately past projects in the area, and to provide any useful analysis of the cumulative impact of past, present and future projects and the Hatton Canyon freeway on the wetlands, Monterey pine and Hickman's onion." 123 F.3d at 1160. Although the impacts on these resources were dealt with in individual sections, the "analyses are not lengthy, and taken either separately or together they fail to provide sufficient information to satisfy the National Environmental Policy Act." 123 F.3d at 1160.

The court pointed out that past projects were only described "with generalities insufficient to permit adequate review of their cumulative impact." 123 F.3d at 1160. This was done, despite the EIS's "acknowledgment that the Carmel area has experienced 'substantial growth' over 'the last 30 years,' including development on 'both sides of the Hatton Canyon.'" *Id.* The EIS better addresses planned future projects, but still omits "any discussion of how these projects together with the proposed Hatton Canyon project will affect the wetlands, Monterey pine and Hickman's onion." 123 F.3d at 1160.

The Federal Highway Administration argued that the cumulative impacts discussion was adequate, particularly in the absence of a direct challenge by the plaintiffs to a specific action that the EIS failed to consider, and plaintiffs had not adequately shown that specific projects needed to be considered. That argument was rejected by the court. "[T]he Federal Highway Administration . . . failed first; [it] did not properly describe other area projects or detail the cumulative impacts of these projects." 123 F.3d at 1161. The

court held that the Federal Highway Administration bears this burden under NEPA and quoted language from *City of Davis v. Coleman*, 521 F.2d 661, 671 (9<sup>th</sup> Cir. 1975), stating that the primary duty of every federal agency to fulfill its NEPA “responsibility should not depend on the vigilance and limited resources of environmental plaintiffs.” 123 F.3d 1161.

### **Statute of Limitations**

A six-year statute of limitations for NEPA challenges under the APA was upheld in *Sierra Club v. Slater*, 120 F.3d 623 (6<sup>th</sup> Cir. 1997), which involved challenges to both the adequacy of an EIS and the decision not to prepare a supplemental EIS. Plaintiffs sued to prevent construction of an urban redevelopment project and 3.5 miles of a highway in Toledo, Ohio. Federal defendants argued that these claims were time barred. Plaintiffs, however, maintained that NEPA contains no statute of limitations and, based on its equitable remedies, the only time limitation that should apply is the doctrine of laches. Further, plaintiffs maintained that a subsequent decision not to supplement the original EIS reopened the earlier decisions for statute of limitations purposes.

The Federal Highway Administration, considering funding a highway project, completed an EIS in February 1984 and issued a Record of Decision in April 1984. The applicant City of Toledo then applied for a special permit from the Army Corps of Engineers in 1990, and the permit was granted in 1992. Based on the amount of time that had elapsed

between the approval of the EIS and the start to construction, the Federal Highway Administration’s regulations required a reevaluation to determine whether a supplemental EIS was required. In January 1995, the agency decided that no supplemental EIS was necessary.

The Sixth Circuit reiterated that federal jurisdiction over NEPA claims arises under the Administrative Procedure Act, 5 U.S.C. 701-706. Further, APA actions are subject to the six-year statute of limitations imposed by 28 U.S.C. 2401(a), which states that complaints under the APA are reviewed as a “civil action” within the meaning of 2401(a). In addition, the court noted that the Tucker Act, 28 U.S.C. 1491, contains a six-year statute of limitations for every civil action commenced against the United States. 120 F.3d at 629. Therefore, a statute of limitations, and not merely an equitable defense of laches, was appropriate.

Therefore, plaintiffs’ rights of action which accrued outside the six-year limitations period are time-barred. Those, however, accruing within six years of the plaintiffs’ filing of their complaint, would not be time-barred. Under the APA, a right of action accrues at the time of “final agency action.” 28 U.S.C. 704. The court determined that for purposes of statute of limitations, “it appears well-established that a final EIS or the ROD issued thereon constitute the ‘final agency action’ for purposes of the APA.” 120 F.3d at 630. Therefore, the circuit court affirmed the district court’s dismissal of challenges to the 1984 EIS and the 1984 ROD, and also affirmed the district court’s decision not to dismiss the chal-

lenges to the Federal Highway Administration's decision in 1995 not to issue a supplemental EIS. Similarly, challenges to the Corps' issuance of a permit in 1992 was also not time-barred. The 1995 decision not to supplement the EIS did not permit plaintiffs to reach back and challenge the 1984 decision.

### **Major Federal Action**

In Marbled Murrelet v. Babbitt, 111 F.3d 1447 (9<sup>th</sup> Cir. 1997), the plaintiff filed an action against the Department of the Interior and logging companies, seeking to protect habitat of the marbled murrelet and northern spotted owl. The district court issued a preliminary injunction and enjoined logging activities under eight timber harvest plans. The Ninth Circuit vacated the injunction, stating that a mere concurrence letter from the Fish and Wildlife Service indicating its opinion that timber harvest plans submitted for state approval would avoid the take of protected species did not trigger any requirements under NEPA or the Endangered Species Act. That is so, because the submission of a concurrence letter is neither a "major federal action" under NEPA or an "agency action" under the ESA.

The sole discretion for approval of timber harvest plans rests with the California Department of Forestry and Fire Protection. The Fish and Wildlife Service opinion may be credited with some deference by the California State agency, but it also may not. But, the issuance of such an opinion does not "force 'agency action' onto the federal government." 111 F.3d at 1450. Further, the court indicated that

once it has determined there is no "agency action" under ESA, it "necessarily" also determines that there is no "major federal action" under NEPA. Id.

In Fund for Animals, Inc. v. Thomas, 127 F.3d 80 (D.C. Cir. 1997), plaintiffs challenged a U.S. Forest Service decision to allow states to continue to regulate game baiting on federal forest lands. At issue in the case was "bear baiting", the practice of placing food or scent to attract wild game to a particular hunting location. Bear baiting is prohibited in most states, but remains lawful in nine states. At one time the Forest Service regulated the practice in some states. The Forest Service prepared an EA in 1993 to consider various options for regulating baiting on Forest System lands in Wyoming and issued a Decision Notice and FONSI to transfer regulation of baiting to the State of Wyoming. The Forest Service specifically concluded that the change to Wyoming regulation was not a "major federal action" and would "not significantly affect the quality of the human environment." The new Wyoming policy, however, was never implemented.

The Forest Service, under threat of further litigation, banned all bear baiting on Forest System lands in Wyoming while it prepared a comprehensive national baiting policy. In 1995, the Forest Service issued an EA on a nationwide policy that would eliminate all Forest Service involvement with bear baiting and would rely solely on State regulation of baiting game on National Forest System lands. In the Decision Notice and FONSI, the Forest Service stated that its actions were not

major federal actions and no EIS was required.

Plaintiffs challenged the Forest Service's view of major federal action. The D.C. Circuit affirmed the district court and determined that the Forest Service was correct, because even if there were some type of federal action, there was "not a 'major' federal action under NEPA." 127 F.3d at 83. The court found that by 1995 baiting remained federally regulated only in Wyoming and the shift from federal to state regulation had no effect outside Wyoming. Even in Wyoming, though, the effect was minimal because the substantive requirements of Wyoming were significantly similar to the Forest Service permits they replaced. Because "the new national policy maintained the status quo, it cannot be characterized as a major federal action' under NEPA." 127 F.3d at 84.

By contrast, the court in Ross v. Federal Highway Administration, 972 F. Supp. 552 (D. Kan. 1997), determined that an entire federally funded highway demonstration project was a major federal action subject to NEPA, despite the claim that no federal funds were requested or approved for one portion of the project. Following a 1993 decision that a Supplemental EIS was necessary on the Trafficway project, the Kansas Department of Transportation requested the Federal Highway Administration to segment the Trafficway into four parts. The eastern leg, at issue here, was found to have independent utility by the federal agency. After much disagreement on the SEIS proposals, the Kansas Department of Transportation began construction of the

eastern leg of the Trafficway without federal funds in 1997.

Plaintiffs filed this action to stop construction, and the court held a hearing to determine jurisdiction. The court noted that "NEPA can be invoked only if a major federal action has affected significantly the quality of the human environment." 972 F. Supp. at 558. This includes both federal actions and non-federal actions "subject to Federal control and responsibility." *Id.* The court reviewed the clear language and congressional intent of two other statutes at issue—the Surface Transportation and Uniform Relocation Assistance Act of 1987 and the Intermodal Surface Transportation Efficiency Act of 1991. Under these statutes, demonstration projects were to be treated differently than routine highway projects, because Congress had selected these projects and the state no longer had discretion whether to seek Federal Highway Administration funding. Based on that, the \$10 million in demonstration funds appropriated for the Trafficway could not be divided into segments. The entire Trafficway was, therefore, a major federal action over which federal defendants had control. 927 F. Supp. at 561.

### **Adequacy of an EIS**

Adequacy of an EIS was at issue in Association of Public Agency Customers, Inc. v. Bonneville Power Administration, 126 F.3d 1158 (9<sup>th</sup> Cir. 1997). The BPA, part of the Department of Energy, has marketing authority for power produced by federal facilities in the Pacific Northwest. It also has certain responsibilities for

non-federal power. Petitioners here sought review of the BPA's actions under various utility laws and NEPA resulting from the 1992 renegotiation of long-term industrial power contracts with a simultaneous EIS, which was completed in 1995.

Anticipating a June 1993 deadline, BPA began the renegotiation of its long-term power sales contracts in early 1992. BPA also began a parallel NEPA process, publishing a Notice of Intent to prepare an EIS. The renegotiations participants established working groups to consider specific issues. When the working groups identified additional issues for consideration, BPA proposed to expand the scope of the EIS in August 1993. Based on public comments, the BPA further expanded the EIS in December 1993 to encompass more issues. New negotiations commenced in September 1994, and a Supplemental Draft EIS was announced in December 1994. The Draft SEIS was issued in March 1995, and in April several short-term contracts were finalized. These contracts were circulated for public review. The Final EIS was published in June 1995, and in August 1995 the Record of Decision issued. Long-term contracts were then signed.

Petitioners maintained that BPA violated NEPA on a number of grounds. The court, however, approved of BPA's handling of its EIS. The court approved of the six alternatives considered and the analysis of cumulative effects. 126 F.3d at 1184. The scope of the EIS, focusing on time periods ending around 2002 and BPA's methodology for assuming that their conclusions would hold true in the future, was also held to be adequate. 126

F.3d at 1188. *Id.* The BPA was not required to consider signing no contracts at all as a "no action" alternative; continuation of present power sales contracts would suffice for the "no action" alternative. 126 F.3d at 1188.

Further, BPA did not need to examine the economic consequences of its actions. 126 F.3d at 1186. The theme of NEPA is "sounded by the adjective 'environmental.'" 126 F.3d at 1186, citing *Metropolitan Edison Co. v. PANE*, 460 U.S. 766, 772 (1983). Accordingly, the court held that BPA was not required to examine the economic effects of its actions, based on the well-established rule that economic effects by themselves do not require an EIS. 126 F.3d at 1186, noting the CEQ regulation at 40 C.F.R. 1508.14. The court did not, however, discuss the rest of that regulation, which states that an EIS will discuss economic effects once an EIS is triggered by environmental effects.

Petitioners argued that the decision to offer some kind of cost protection required analysis on variations, alternatives and mitigation. The court, however, rejected that and cited a list of considerations. First, "BPA had to act quickly to secure [certain] power contracts or lose the contract opportunity for five years." 126 F.3d at 1185. Second, petitioners failed "to champion the environmental concerns associated with stranded cost protection" in the administrative proceedings. *Id.* Third, the petitioners "advance little evidence that offering stranded cost protection seriously endangers the environment in any area." *Id.*

Petitioners also argued that the EIS did not discuss the global warming implica-

tions from the effects of greenhouse gases released for increased operations. The court held, however, that the EIS's discussion of environmental impact included a discussion of carbon dioxide output, and this discussion satisfied the requirements of NEPA and petitioners' concerns about global warming. 126 F.3d at 1187.

Finally, petitioners asserted that the BPA had failed to discuss the transboundary impacts in Canada of continued Canadian gas exploration. The court found, however, that the environmental effects of Canadian gas exploration had been examined and cited to the EIS section. 126 F.3d at 1187.

In sum, the court acknowledged that widespread deregulation of the electricity industry had transformed the power markets. After, however, full review of the record, the Administrator of BPA's decisions "in response to market forces were not arbitrary or capricious, and were in accordance with applicable law." 126 F.3d at 1189.

### ***Adequacy of an EA and FONSI***

In Oregon Natural Desert Association v. Green, 953 F. Supp. 1133 (D. Or. 1997), plaintiffs challenged the Bureau of Land Management's EA and FONSI on a management plan under the Wild and Scenic Rivers Act and NEPA. The court held that BLM violated NEPA by failing to prepare an EIS to analyze the impact of grazing in the river area, as well as decisions to construct new parking lots and roads. Based on the scientific evidence presented to the court, grazing, parking

lots and roads all have a significant impact on the river area.

As one of its defenses, BLM maintained that an EIS was not required because livestock grazing in the Donner and Blitzen River area was the status quo, and an EIS is not required for an agency's continued management activities that have been in existence for many years. The court disagreed. First, the Wild and Scenic Rivers Act "sets forth affirmative duties on the part of federal agencies charged with managing rivers in the System." 953 F. Supp. at 1147. Therefore, BLM had to prepare a management plan "to protect and enhance the outstandingly remarkable values of the Donner and Blitzen River." *Id.* Second, because of the new duties under the Wild and Scenic Rivers Act, BLM's decisions to authorize continued cattle grazing becomes a new decision under a new mandate and "more than merely continuing activities." *Id.*

By contrast, the Forest Service's adoption of interim policies did not require an EIS. In Prairie Wood Products v. Glickman, 971 F. Supp. 457 (D. Or. 1997), the Forest Service's adoption of temporary policies for timber harvests in nine national forests, pending completion of a long-term forest plan, did not require an EIS where the EA and FONSI considered the policies' potential to affect future actions. The interim policies concerned management of lands in the Columbia River Basin in seven states, where salmon and trout had declined dramatically and forests near riparian habitats were protected. The interim policies were to be replaced with long-term strategies.

Plaintiffs maintained that the science, the controversy, the precedential effect, the adverse economic effects and the uncertainty of the environmental impacts all warranted the preparation of an EIS. The court, however, reviewed each claim and determined that the “Forest Service took the requisite ‘hard look’ at the environmental effects of its decision and at the factors specified in 40 C.F.R. 1508.27.” 971 F. Supp. at 470.

Continuing adequacy of an EA and FONSI was raised in Price Neighborhood Association v. DOT, 113 F.3d 1505 (9th Cir. 1997), where plaintiffs challenged DOT’s failure to supplement an EA after modifying the original freeway proposal design. The court, noting that “CEQ regulations do not address when an EA must be supplemented,” concluded that an “environmental reevaluation” as conducted by the Federal Highway Administration was an appropriate method to determine whether the design change would be significant so as to warrant further assessment. 113 F.3d at 1509.

Similarly, in Western Radio Services Co. V. Espy, 123 F.3d 1189 (9th Cir.

1997), plaintiff sued to prevent the Forest Service from allowing a competitor to build a tower in Ochoco National Forest based on an existing EA. Plaintiff maintained that a new EA was necessary to reissue a permit. The new reissued permit was identical to the original one, and renewal was necessary because construction had not been completed by the time the original permit expired.

The court ruled that the new permit did not require a new EA, even where plaintiffs maintained that a new proposed access road had changed the action. “Because the reissued permit is identical in every material respect to the original permit, and because construction of the tower is not in any way conditioned on construction of the new access road, we hold that it was not arbitrary, capricious or an abuse of discretion for the [Forest] Service to reissue the special use permit without preparing a new EA.” 123 F.3d at 1195, citing Abenaki Nation of Missisquoi v. Hughes, 805 F. Supp. 234, 240-42 (D. Vt. 1992), aff’d, 990 F.2d 729 (2d Cir. 1993).